

TRANSMITTAL OF APPEAL BRIEFDocket No.
POM-13602/29

In re Application of: Jyoti Mazumder

Application No.
10/784,433-Conf. #2538Filing Date
February 23, 2004Examiner
S. IpGroup Art Unit
1742Invention: WEAR RESISTANT ALLOYS PARTICULARLY SUITED TO ALUMINUM-ENGINE HEAD-
VALVE SEATS**TO THE COMMISSIONER OF PATENTS:**Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal
filed: January 15, 2008 .The fee for filing this Appeal Brief is \$ 255.00 .☐ Large Entity ☒ Small Entity☐ A petition for extension of time is also enclosed.

The fee for the extension of time is _____ .

☐ A check in the amount of _____ is enclosed.☐ Charge the amount of the fee to Deposit Account No. _____ .
This sheet is submitted in duplicate.☒ Payment by credit card. Form PTO-2038 is attached.☒ The Director is hereby authorized to charge any additional fees that may be required or
credit any overpayment to Deposit Account No. 07-1180 .
This sheet is submitted in duplicate./John G. Posa/Dated: March 17, 2008John G. Posa
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Jyoti Mazumder

Serial No.: 10/784,433

Group No.: 1742

Filed: February 23, 2004

Examiner: S. Ip

For: WEAR RESISTANT ALLOYS PARTICULARLY SUITED TO ALUMINUM-ENGINE
HEAD-VALVE SEATS

APPELLANT'S APPEAL BRIEF UNDER 37 CFR §41.37

Mail Stop Appeal Brief
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I. Real Party in Interest

The real party in interest in this case is The POM Group, by assignment.

II. Related Appeals and Interferences

There are no appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

The present application was filed with 10 claims. Claims 1, 3-6 and 8-10 have been withdrawn from consideration. Claims 1-10 are pending; however, claims 2 and 7 are rejected and under appeal. Claim 2 is the sole independent claim under appeal.

IV. Status of Amendments

No after-final amendments have been filed.

V. Summary of Claimed Subject Matter

Independent claim 2 directed to a copper alloy comprising 6 to 15 weight percent nickel; 2 to 6 weight percent silicon; 1 to 10 weight percent iron; 1 to 10 weight percent chromium; 1 to 10 weight percent of at least one element selected from the group consisting of: Mo, W, Ti, Zr, Nb and V; 1 to 3 weight percent yttrium and/or hafnium; and a balance of copper. (Specification page 6).

VI. Grounds of Rejection To Be Reviewed On Appeal

- A. The rejection of claims 2 and 7 under 35 U.S.C. §112, first paragraph.
- B. The rejection of claim 2 under 35 U.S.C. §103(a) as being unpatentable over JP 61183426.
- C. The rejection of claim 7 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,531,003 to Ninomiya et al. in view of JP 61183426.

VII. Argument**A. Rejection of Claims 2 and 7 under 35 U.S.C. §112, First Paragraph**

Claims 2 and 7 stand rejected under 35 U.S.C. §112, first paragraph, on the grounds that Applicant has no literal support for 6% wt. of Ni content. Appellant respectfully disagrees. The Board will note that Appellant's disclosed "Alloy 2" (Specification, page 6) sets forth 5-15% Ni. Clearly 6% is within this range.

B. Rejection of Claim 2

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP 61183426. By this amendment, claim 2 has been changed to set forth 6 to 15 weight percent nickel as opposed to 5 to 15 weight percent, and the weight percent of manganese has been deleted as unnecessary. This clearly distinguishes over the Japanese Furukawa reference, which specifies no more than five percent weight of nickel (Ni). Indeed, Furukawa references to "5.0 or less" makes it clear that the cited reference teaches away from anymore than five percent, thereby precluding *prima facie* anticipation and obviousness.

The Examiner's argument is that the burden is on Applicant to show that there are substantial,

actual differences between the properties of the claimed compound and the prior art compound, citing *In re Hoch* (citations omitted). Appellant believes this precedent is being misapplied in this case. In *Hoch*, Applicant claimed *a compound*. However, in this case, Appellant is claiming an alloy. Whereas, in some compounds, relatively minor adjustments to ingredients may not change chemical behavior, the same cannot be said of most alloys. Indeed, with alloys, an insignificant change can alter basic properties of interest such as electrical conductivity, hardness, melting point, etc. As such, Appellant argues that the Examiner cannot simply shift the burden of proving *non-obviousness* to Appellant, but must first present a rebuttable case of obviousness, which has not occurred in this case.

C. Rejection of Claim 7

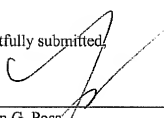
Claim 7 sets forth a cast Al-Si alloy engine head having a valve seat constructed through the deposition of the alloy of claim 2. Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,531,003 to Ninomiya *et al.* in view of JP 61183426. The Examiner's argument to combine these references seems to be undermined by the Examiner's own reference to that fact that, according to Ninomiya *et al.* a rare earth content greater than 0.1 wt.% "is no further advantage." (Final OA, middle of p. 4) This apparently being the case, it would not be obvious to increase such content for any reason since the primary reference teaches away from same. Nor is there any way of knowing whether the Examiner's proposed combination would, in fact, result in "high strength" or "heat resistant properties." As such, *prima facie* obviousness has not been established.

Conclusion

In conclusion, for the arguments of record and the reasons set forth above, all pending claims of the subject application continue to be in condition for allowance and Appellant seeks the Board's concurrence at this time.

Respectfully submitted,

By: _____


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Date: March 17, 2008

APPENDIX A

CLAIMS ON APPEAL

2. A copper alloy comprising:
6 to 15 weight percent nickel;
2 to 6 weight percent silicon;
1 to 10 weight percent iron;
1 to 10 weight percent chromium;
1 to 10 weight percent of at least one element selected from the group consisting of: Mo, W, Ti, Zr, Nb and V;
1 to 3 weight percent yttrium and/or hafnium; and
a balance of copper.
7. A cast Al-Si alloy engine head having a valve seat constructed through the deposition of the alloy of claim 2.

APPENDIX B

EVIDENCE

None.

APPENDIX C
RELATED PROCEEDINGS

None.